

in fact, they are not known to occur on this side of the globe.

So far as the author is aware Murray's collection of algæ are found both at the British Museum and the Kew Herbarium. Dr. F. Borgensen<sup>2</sup> of Copenhagen was rather misled by Murray's collection found at the latter place. This at least has been made clear by him in the following words: "When I heard that the British Museum also possessed a large collection of J. A. Murray's Algæ from Karachi I was of course especially interested in finding out whether the northern species were found there too. This not being the case greatly increases my doubts as to whether they really live there." etc.

As some of the plants mentioned by Murray are of economic utility I visited Karachi in 1938 to find out for myself if the species were still available there. I was sorely disappointed in my search. At the same time I inquired at the Municipal Museum where Murray was a Curator, if some of his plants could be found there. There, I saw for the first time in this country, good many marine plants exhibited. They really were old but the date and the name of the collector were not on them and still more, the specimens were not what they were labelled to be. It is difficult to believe that all these plants mentioned could have existed in the locality only three score years before and now completely exterminated.

It is a loss to science that Murray's first collection is not preserved in this country so that it could now be revised like Forsskal's algæ mentioned in *Flora Ægyptico Arabica*. However, this note would serve its humble purpose if the Government and the Universities would learn better from the past and try to preserve all the original natural history specimens in this country as a national trust.

S. C. DIXIT.

Wilson College,  
Bombay.

<sup>1</sup> James A. Murray, *The Plants and Drugs of Sind*, Bombay, 1881, pp. 1-6.

<sup>2</sup> F. Borgensen, *A List of Marine Algæ from Bombay*, pp. 4-5, *Biologiske Meddelelser*, 1935, XII, 2, Kobenhavn.

### Constitution of Sulphur Nitride

THE note on the above subject in the October issue of *Current Science* (p. 473), calls for a few comments. The term "resonance" must not be mistaken for alternate structures, as the authors of the above note seem to do. After quoting the idea of Arnold, Hugill, and Hutson that sulphur nitride has structure I *with* (italics mine) the corresponding resonance structures Ia and Ib, the authors proceed to pick out which is the correct formula! The dipole moment of  $S_4N_4$  as measured indicates but the polarity of the superposed state of the molecule and not that of any component state.<sup>1, 2</sup>

Apart from this, from a purely structural point of view, (1) it is wrong to say structure I will have  $\mu = 0$ , as on account of the possible free rotation about the single bonds, it will have quite an appreciable moment;<sup>3</sup> (2) the moment of Ib may be due to similar reasons, the contribution of  $>S=S$  being practically nil as it is a homopolar bond; (3) the formula, Ia, if redrawn with the normally accepted valency angles, will show that there are no re-entrant angles at S atoms.

M. A. GOVINDA RAU.

Department of Physics,  
Indian Institute of Science,  
Bangalore,  
October 31, 1939.

<sup>1</sup> C. K. Ingold, *Chemical Review*, 1934, 15, 225.

<sup>2</sup> M. A. G. Rau, *Proc. Ind. Acad. Sci.*, (A), 1936, 4, 687.

<sup>3</sup> —, *Curr. Sci.*, 1934, 3, 145.

IN our note on the Constitution of Sulphur Nitride, when we assigned the structure (Ib) to  $S_4N_4$ , we meant to say that (Ib) was the predominant structure of the three. Regarding the actual origin of the moment and the comments of Dr. Rau, full details will be published elsewhere.

N. L. PHANILKAR.

B. V. BHIDE.

Chemistry Laboratory,  
Sir Parashurambhau College,  
Poona 2,  
December 22, 1939.